

SHAPOVAL, A.G., kand.sel'skokhozyaystvennykh nauk; KHUDENKO, M.N.

Two crops from irrigated areas. Zemledelie 24 no.6:34-36 Je
'62. (MIRA 15:11)

1. Ukrainskiy nauchno-issledovatel'skiy institut oroshayemogo
zemledeliya.

(Ukraine—Corn (Maize)—Irrigation)

KHUDENKO, T.

One of the best restaurants in the Virgin Territory.
Obshchestv. pit. no.8:7-8 Ag '61. (MIRA 14:10)

1. Starshiy ekonomist Upravleniya obshchestvennogo pitaniya
Tselinnogo krayevogo upravleniya sovkhozov.
(Virgin Territory--Restaurants, ~~lunchrooms~~, etc.)

SOV/126-7-4-26/26

AUTHOR: Khudenskiy, Yu.K.

TITLE: Application of a Conical Collimator for Scanning
Polished Sections

PERIODICAL: Fizika metallov i metallovedeniye, 1959, Vol 7, Nr 4,
pp 639-640 (USSR)

ABSTRACT: Radiographic investigations of polished sections produced by addition of radioactive isotopes is one of the most widely used methods of studying inclusions (Ref 1). However, preparation of radiographs of specimens with low specific activities as regards soft β and γ -radiations is very difficult. These difficulties lead to the necessity of using various types of scanning equipment with high sensitivity sensing devices, for instance, collimated scintillation counters (Ref 2). The work described in this paper was carried out for elucidating the advantages of a conical "focussing" collimator. It was assumed that use of a conical collimator, which would permit increasing the aperture of the sensing device, will bring about an increase in the spatial selectivity of the instrument. The authors used a FEU-S scintillation counter with a NaI(Tl) crystal

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and a single channel analyser. The radioactive Co^{60} preparations, by means of which the collimator investigations were made, were deposited on to a zapon film which was clamped into a holder. The holder was moved by means of a micrometer thread. For hard radiations the collimator was made of lead, for soft radiations it was made of a plastic. The changes in the speed of counting were investigated as a function of the coordinates of the source along the collimator axis and in the plane perpendicular to that axis. The measurements were carried out for various discrimination levels. The graph, Fig 1a, shows the dependence of the counting speed during displacement of the source in a plane perpendicular to the axis of the collimator, the assumed focus of the collimator being in this plane. The curves, Fig 2, indicate the changes in the counting speed during displacement of the source along the collimator axis (for low as well as for high discrimination levels). Both relations were obtained for a Co^{60} radiation source of 0.9 mm diameter with an activity of 0.05 m Curie and a lead collimator with

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dimensions of the active part as given in Fig 1b. Analysis of the obtained data allows the following conclusions: (a) Due to increasing the aperture of the sensing device, the accuracy of detecting radiation sources in a plane perpendicular to the axis of the collimator is higher for a conical collimator than for a cylindrical one for an equal degree of diaphragming. (b) The accuracy of detecting radiation sources along the axis of the collimator in the case of comparable dimensions of the source and of the input opening of the collimator is low, since the real focal distance of the collimator is a function of the source dimensions. (c) The accuracy of detecting radiation sources increases with increasing amplitude discrimination of the counters even in the case of providing the internal cone of the collimator with a certain number of ribs along its generatrix. (d) Conical Collimators made of various materials can be applied for determining clearly the planar topography of β and γ active micro-regions during scanning of polished sections. Acknowledgments are

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Application of a Conical Collimator for Scanning Polished Sections
expressed to N.M.Napol'skiy who participated in
producing the test equipment. There are 2 figures and
2 Soviet references.

[n.b. This is a complete translation]

ASSOCIATION: Ural'skiy politekhnicheskiy institut imeni S.M.Kirova
(Ural Polytechnical Institute imeni S.M.Kirov)

SUBMITTED: June 12, 1958

Card 4/4

S/120/62/000/001/011/061
E032/E514

AUTHORS: Tsirlin, Yu.A., Shvets, V.A. and Khudenskiy, Yu.K.

TITLE: Determination of the resolution of scintillation counters

PERIODICAL: Priory i tekhnika eksperimenta, no.1, 1962, 56-57

TEXT: The resolution of a scintillation counter with sodium iodide or caesium iodide phosphors is usually determined either as the half-width of the Cs^{137} photo-peak divided by the corresponding channel number, or by comparing the two Co^{60} peaks at 1.17 and 1.33 MeV with the depth of the minimum between them. There is no published method whereby the results of these two determinations can be compared. The authors have found a relation between the ratio of the 1.33 MeV peak to the ordinate of the minimum of the pulse height distribution curve and the resolution R_{Co} for 1.33 MeV gamma-rays. In the calculation it was assumed that the photoelectric cross-section in this energy range is inversely proportional to $E^{1.35}$, that the form of the photo-peak is Gaussian and that the resolution of the scintillation

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Determination of the resolution ... S/120/62/000/001/011/061
E032/E514

counter is inversely proportional to $E^{0.5}$. It is shown that the relation between the above ratio and the resolution is in fact

$$\gamma = 0.44 \exp(115/R^2).$$

This result is in good agreement with the reported experimental values for crystals with linear dimensions in excess of 1 cm. There is 1 figure.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut
monokristallov, stsintillyatsionnykh materialov i
osobo chistyykh khimicheskikh veshchestv
(All Union Scientific Research Institute of
Monocrystals, Scintillator Materials and Extra-
pure Chemical Substances)

SUBMITTED: May 26, 1961

Card 2/2

ACC NR: AT6034037

SOURCE CODE: UR/0000/66/000/000/0147/0149

AUTHOR: Voyevoda, L. V.; Okayuk, A. A.; Sidorova, R. P.; Ishchenko, I. K.;
Khudenskiy, Yu. K.; Tishchenko, V. G.

ORG: none

TITLE: Correlation of the structure of the first coordination sphere with emission spectra of europium benzoylacetonate

SOURCE: Simpozium po spektroskopii kristallov, soderzhashchikh redkozemel'nyye elementy i elementy gruppy zheleza. Moscow, 1965. Spektroskopiya kristallov (Spectroscopy of crystals); materialy simpoziuma. Moscow, Izd-vo Nauka, 1966, 147-149

TOPIC TAGS: ~~europium complex, organoeuropium compound~~, luminescence spectra, IR spectrum, chelation, crystal symmetry, absorption spectrum, emission spectrum, benzene, europium compound, acetone, complex molecule

ABSTRACT: Infrared absorption spectra of the microcrystalline EuB_3P , EuB_4HP , and $\text{EuB}_3\text{H}(\text{NH}_3)$ complexes, where B is benzoylacetonate and P is piperidine, were measured at 77K to clear up the controversy about the degree of distortion of the first coordination sphere of the Eu^{3+} ion. This study was prompted by the reported difference in the luminescence spectra of Eu^{3+} in benzoylacetonate complexes with different bases and by the earlier failure to correlate the emission spectra with the symmetry of the ligand field. A difference in the luminescence spectra of the

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above Eu chelates was noted, even though they contained the same base, and was attributed to different structural modifications of the europium benzoylacetonate. The shape of the infrared spectra of the complexes studied confirmed the assumption of a continuous decrease in distortion of the coordination oxygen octahedron in the process of formation of the tetraligand EuB_4HP . The EuB_3P complex is formed first in the process of synthesis and displays infrared spectrum identical with that of $\text{EuB}_3\text{H}(\text{NH}_3)$. Depression of the spectral line corresponding to $^5\text{D}_0-^7\text{F}_0$ transition in EuB_4HP as compared to EuB_3P indicated a decrease in distortion of the coordination octahedron and was accompanied by an increase in relative luminescence yield. The spectral characteristics of EuB_4HP and EuB_4HM , where M is morpholine, are, therefore, correlated with the increase in symmetry of the first coordination sphere in comparison with EuB_3P or $\text{EuB}_3\text{H}(\text{NH}_3)$. Orig. art. has: 2 figures and 1 table.

SUB CODE: 07/ SUBM DATE: 25Mar66/

Card 2/2

ACC NR: AT6034038

SOURCE CODE: UR/0000/66/000/000/0150/0152

AUTHOR: Oksayuk, A. A.; Voyevoda, L. V.; Sidorova, R. P.; Ishchenko, I. K.;
Tishchenko, V. G.; Khudenskiy, Yu. K.

ORG: none

TITLE: Coordination symmetry of the emitting ion in various rare-earth element
chelates

SOURCE: Simpozium po spektroskopii kristallov, soderzhashchikh redkozemel'nyye
elementy i elementy gruppy zheleza. Moscow, 1965. Spektroskopiya kristallov
(Spectroscopy of crystals); materialy simpoziuma. Moscow, Izd-vo Nauka, 1966, 150-152

TOPIC TAGS: rare earth complex, organoeuropium compound, organogadolinium compound,
organoterbium compound, organodysprosium compound, organoholmium compound, chelate,
luminescence spectrum, IR spectrum, crystal symmetry, absorption spectrum,
benzene, acetone, complex molecule, rare earth element

ABSTRACT: A study of the infrared absorption spectra of the rare-earth element
benzoylacetates [same source, p. 147-149] was extended to the microcrystalline
protonized modifications MeB_4 , where Me = Eu, Gd, Tb, Dy, or Ho and B = benzoylace-
tone. The purpose of the study was to evaluate the effect of splitting of the f
energy levels in the ligand field on the frequency shift of the infrared absorption
bands of carbonyl groups (1500—1610 cm^{-1} region). The frequency shift in this
region, as in the 500—900 cm^{-1} region, reflects a decrease in distortion of the

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ACC. NR. AT6034038

first coordination sphere. The microcrystalline MeB_6 complexes were expected to display higher symmetry of the first coordination sphere by analogy with the MeB_6EP complexes. The graph of the frequency of carbonyl band ($\nu_{1575} \text{ cm}^{-1}$) of MeB_6 complexes versus the atomic number of Me exhibited the "gadolinium angle" analogous to the one observed earlier on the graph of stability constants of the same complexes. The "gadolinium angle" may be correlated with a uniform distribution of f-electrons between orbitals of the Gd atom. Orig. art. has: 3 figures and 1 table.

SUB CODE: 07/ SUBM DATE: 25May66/

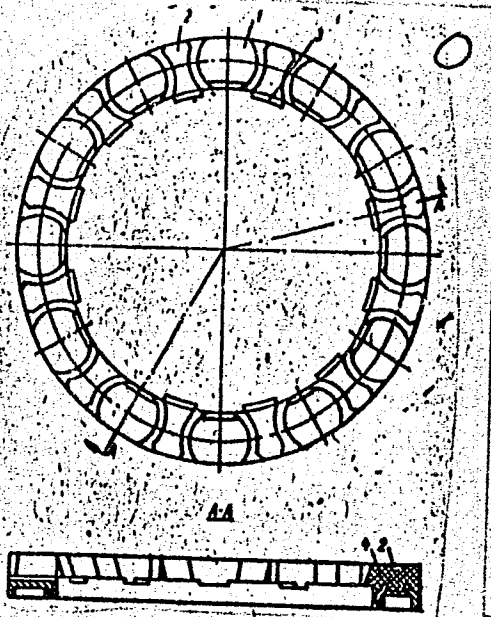
Card 2/2

L 27353-66 EWT(m)/T/ETC(m)-6 WW/DJ
 ACC NR: AP6007711 (A) SOURCE CODE: UR/0413/66/000/003/0105/0105
 AUTHORS: Baryshev, V. F.; Shlayan, B. M.; Blankman, M. A.; Khudayev, S. V. 34
 ORG: none B
 TITLE: Split roller bearing separator. Class 47, No. 178617
 SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 3, 1966, 105
 TOPIC TAGS: antifriction bearing, roller bearing
 ABSTRACT: This Author Certificate presents a split roller bearing separator consisting of two separate half-separators with nests for the bearing bodies between which inserts of antifriction material are located. To increase wear resistance and to permit axial loading, the nests are used for the roller ends while the inserts have shoulders directed to the inside of the half-separators. These shoulders are connected by a reinforcing ring (see Fig. 1). To facilitate assembly, an additional feature has the two diametrically opposed inserts of the two half-separators without the protruding shoulder. 17
 Card 1/2 UDC: 621.822.722:621.822.8 2

L 27353-66

AGG NR: AP6007711

Fig. 1. 1 - nest; 2 - insert;
3 - shoulders; 4 - reinforcing
ring.



Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 15Jun64

Card 2/2

KHUDGARYAN, K.

Calculating net income on collective farms. Vop. ekon.
no.3:143-146 Mr '61. (MIRA 14:3)
(Collective farms---Finance)

BERKOVSKIY, V.S., inzh.; LOBAREV, M.I., inzh.; KHUDIK, V.T., inzh.;
CHIZHIKOVA, I.Yu., inzh.

Wear and the surface finish of cast-iron rolling mill rolls.
Stal' 21 no. 4:340-343 Ap '61. (MIRA 14:4)

1. Zavod "Dneprospetsstal'"
(Rolls (Iron mills)--Testing)

KHUDIK, V.T.; MANUSOV, P.M.

Adjustment of roller boxes. Metallurg 7 no.9:22-24 S '62.
(MIRA 15:9)

1. Rukovodital' gruppy tsentral'noy zavodskoy laboratorii
Dneprovskogo elektrometallurgicheskogo zavoda spetsial'nykh
staley (for Khudik). 2. Starshiy master stana 280 Dneprovskogo
elektrometallurgicheskogo zavoda spetsial'nykh staley (for
Manusov).

(Rolling mills)

KHUDIK, Yu.T.; KHUDIK, V.T.

Effect of the stressed state diagram on the metal quality in
metal cutting. Kuz.-shtam. proizvod. 7 no.8:42 Ag '65. (MIRA 18:9)

ROZENGART, Yu.I., dotsent, kand.tekhn.nauk; TAYTS, N.Yu., prof., doktor tekhn. nauk; EPSHTEYN, V.A., inzh.; LITOVCHENKO, Yu.K., inzh.; KHUDIK, V.T., inzh.; MININZON, R.D., inzh.

Study of nonoxidizing heating of alloy steels. Stal' 25 no.5:469-473 My '65. (MIRA 18:6)

1. Dnepropetrovskiy metallurgicheskiy institut i zavod "Dneprospetsstal".

ASTSATUROV, V.N.; KHUDIK, V.T.; SHEKHOVTSOV, O.A.; SAAR, P.A.

Device for automatic measurement of the output in thermostat systems
of continuous furnaces for rolling mills. Avtom. i prib. no.1:4-7
Ja-Mr '63. (MIRA 16:3)

1. Zaporozhskiy filial Instituta avtomatik Pridneprovskogo soveta
narodnogo khozyaystva.

(Furnaces, Heating)

(Electronic control)

KHUDIK, Yu.T.; KHUDIK, V.T.

Correcting rombicity in making forgings of square cross sections.
Kuz.-shtam.proizv. 5 no.2:46-47 F '63. (MIRA 16:2)
(Forging)

KHUDIK, Yu.T.; KHUDIK, V.T.

Peculiarities of making forged pieces with a square cross section.
Kuz.-shtam.proizv. 7 no.2:43-44 F '65.

(MIRA 18:4)

BERKOVSKIY, V.S.; VASILEVICH, N.P.; YEFREMEYKO, S.Z.; KHODIK,
V.T.

Production of upset strip for the tension suspension of the
"Zaporozhets" automobile. Metallurg 10 no.1:28 Ja '65.
(MIRA 18:4)

1. Zavod "Dneprospetsstal".

KHUDIK, Yakov Grigor'yevich [Khudyk, I.A.H.]; KOZIRO, L.U., red.

[Forage beans in the mountain zone] Kormovi boby na verkho-
vyni. Uzhhorod, Zakarpats'ke obl. knyzhkovo-gazetne vyd-vo,
1963. 23 p. (MIRA 17:12)

KHUDIK, Yakov Grigor'yevich [Khudyk, IA.H.]; KOZIKO, L.U., red.;
LUCHKIV, M.R., tekhn. red.

[Forage beans in the highlands] Kormovi boby na verkhovyni.
Uzhhorod, Zakarpats'ke obl. knyzhkovo-gazetne vyd-vo, 1963.
23 p. (MIPA 17:3)

KHUDIK, Yu.T.; KHUDIK, V.T.

Effect of the stressed state diagram on the metal quality in
metal cutting. Kuz.-shtam. proizvod. 7 no.8:42 Ag '65. (MIRA 18:9)

KHUDIK, Yu.T.; KHUDIK, V.T.

Peculiarities of making forged pieces with a square cross section.
Kuz.-shtam.proizv. 7 no.2:43-44 F '65.

(MIRA 18:4)

KHUDIK, Yu.T.; KHUDIK, V.T.

Correcting rombicity in making forgings of square cross sections.
Kuz.-shtam.proizv. 5 no.2:46-47 P '63. (MIRA 16:2)
(Forging)

AKSENOV, Petr Pavlovich, prof., doktor tekhn. nauk; Prinsipali
uchastiye: MAKAROVA, N.S., kand. tekhn. nauk; PROKHOROV,
I.K., dots.; TYUKINA, Yu.P., dots.; PESOTSKIY, A.N.,
retsenzent; KHUDIN, A.S., retsenzent; PASKAKOV, Ye.D., otv.
red.

[Technology of lumber] Tekhnologiya pilomaterialov. Moskva,
Goslesbumizdat, 1963. 578 p. (MIRA 17:5)

SAKHARNAYA, R.Ya., nauchnyy sotrudnik; NOSOVITSKAYA, N.Ya., dessinator;
KHUDIN, A.S.

Manufacture of regular knit goods with cotton machiner.
Tekst. prom. 23 no.12:45-47 D '63. (MIRA 17:1)

1. Ukrainskiy nauchno-issledovatel'skiy institut po pererabotke iskusstvennogo i sinteticheskogo volokna (UkrNIIPV) (for Sakharnaya, Nosovitskaya). 2. Nachal'nik kotonnogo tsekha Kiyevskoy trikotazhnoy fabriki No.2 (for Khudin).

KHUDIN, K.S.

KHUDIN, K. S. "The Rational Cutting of Thick Logs Of Carpathian Beech to make Lumber." Min Higher Education USSR. Leningrad Order of Lenin Forestry Engineering Academy imeni S. M. Kirov. Leningrad, 1956. (Dissertation for the Degree of Candidate in Technical Science)

So: Knizhnaya Letopis', No. 18, 1956,

KRUSHEVSKAYA, D.P. [Krushevs'ka, D.P.]; SAKHARNAYA, R.Ya. [Sakharna, R.IA.];
MIGAY, M.M. [Mihai, M.M.]; KHUDIN, O.S.

Manufacture of regular knit outerwear on cotton machines. Leh.prom.
no.4:12-15 O-D '62. (MIRA 16:5)

1. Ukrainskiy nauchno-issledovatel'skiy institut po pererabotke
iskusstvennogo i sinteticheskogo volokna (for Krushevskaya, Sakharnaya,
Migay). 2. Kiyevskaya trikotazhnaya fabrika No.2 (for Khudin).
(Knitting machines)

KHUDIN, P.F.

The Shcherbakovskii district of the capital. Gor.khoz.Mosk. 28
no.11:9-11 N '54. (MLRA 8:1)

1. Predsedatel' ispolkoma Shcherbukovskogo raysoвета.
(Moscow--Building)

NOSOVITSKAYA, N. Ya. [Nosovyts'ka, N.IA.]; SAKHARNAYA, R. Ya. [Sakharna,
R. IA.]; KHUDIN, V.D.

Manufacture of outerwear knit goods with openwork pattern on
the "Cotton" knitting machines. Let. prom. no.2:17-19 Ap-Je'64
(MIRA 17:?)

NOSOVITSKAYA, N.Ya. [Nosovyts'ka, N.IA.]; SAKHARNAYA, R.Ya. [Sakharna, R.IA.];
KHUDIN, V.D.

Possibilities of producing fancy fabrics on the Cotton machine
for the manufacture of regular dress knit goods. Leh.prom.
no.1:38-40 Ja-Mr '64. (MIRA 19:1)

VEDRINTSEV, Kh.V., uchitel'; POZERN, I.V. (Kostroma); NIKITIN, I., uchitel';
KHUDIS, R.V., uchitel'nitsa (selo Nisporeny Moldavskoy SSR)

Letters to the editors. Geog. v shkole 24 no.4:71-73 J1-Ag '61.
(MIRA 14:8)

1. Pushkarskaya shkola Lipetskoy oblasti (for Vedrintsev). 2. 5-ya
shkola g. Solnechnogorska (for Nikitin).
(Geography--Study and teaching)

KHUDROVSKIY, A. B.

27789. KHUDROVSKIY, A. B. — K voprosu o napravlenii v rekonstruktsii
klopkovoy promyshlennosti Uzbekistana. Trudy in-ta ekonomiki (Akad.
Nauk UzB. SSR). vyp. 2, 1949, S. 64-80

SO: Letopis' Zhurnal'nykh Statey, Vol. 37, 1949

DZHAMALOV, O.B., doktor ekon. nauk; VOLOTKO, N.A.; YUN, D.N.,
kand. ekon. nauk; FOFONOV, B.M., kand. ekon. nauk;
KALYAKIN, P.V., kand.ekon. nauk; DESYATCHIKOV, B.A.,
kand. ekon. nauk; KHUDKOVSKIY, A.B., kand. ekon. nauk;
ARTYKOV, A., kand. ekon. nauk; FOKIN, A.I.; UL'MASOV, A.,
kand. ekon. nauk; YAKOVENKO, Ye., red.; BAKHTIYAROV, A.,
tekh. red.

[Principles of the economics of Uzbekistan industry] Osnovy ekonomiki promyshlennosti Uzbekistana; uchebnoe posobie
Tashkent, Gosizdat UzSSR, 1963. 282 p. (MIRA 17:1)

KHUDNITSKIY, I.I., inzh.

Bucket for transporting hot bitumen mastics. Mekh. stroi. 17 no.11:
26-27 N '60. (MIRA 13:11)
(Bitumen--Transportation)

KHUDNITSKIY, I.I., inzh.

Ball cutter-loaders. Mekh. stroi. 18 no.1:30-31 Ja '61.

(MIRA 14:2)

1. Novo-Kakhovskiy f-t Odesskogo inzhenerno-stroitel'nogo instituta.
(Loading and unloading)

KRYUKOV, A.I., inzh.; KHUDNITSKIY, I.I., inzh.

Organization of waterproofing operations in the construction
of the Kakhovka Hydroelectric Power Station. Gidr. stroi.
32 no.12:14-17 D '6' (MIRA 15:2)
(Kakhovka Hydroelectric Power Station--Waterproofing)

KRYUKOV, A.I., kand. tekhn. nauk; KHUDNITSKIY, I.I., inzh.

Mechanized production of waterproofing materials. Mekh. stroi.
19 no.2:19-22 F '62. (MIRA 16:7)

(Waterproofing)

KRYUKOV, A.I., kand.tekhn.nauk; GALOCHKIN, Ye.D.; KHUDNITSKIY, I.I.

Determining the tractive forces of scrapers. Stroi. i dor. mash.
8 no.2:20-22 F '63. (MIRA 16:3)

(Scrapers)

KHUDNITSKIY, N.I., inzh.

Electric lighting of the Leningrad Planetarium. Svetotekhnika 6
no.5:17-19 My '60. (MIRA 13:12)

1. Institut "Lemproyekt."
(Leningrad--Planetaria--Lighting)

Khudobets, V.S.

YAROSLAVSKIY, V.P.; RAKHLIN, I.A.; KHUDBETS, V.S.

Upper respiratory tract and auditory organs in tractor workers.

Vest. oto-rin. 17 no.5:69-71 S-O '55.

(MIRA 9:2)

1. Iz kafedry oto-laringologii (zav. prof. V.P. Yaroslavskiy)
Vinnitskogo meditsinskogo instituta.

(OTORHINOLARYNGOLOGY,

otorhinolaryngol. organs in tractor operators)

(AGRICULTURE,

otorhinolaryngol. organs in tractor operators)

KH u D O B E T S - S H E R M . N S K I Y , B . I .

Report presented at the 1st All-Union Congress of Theoretical and Applied Mechanics,
Moscow, 27 Jan - 3 Feb '60.

301. G. I. Poin (Moscow): Investigation of the dynamic stability of a thin elastic plate (Ljapunov's method).
302. B. I. Dvornikov (Moscow): Experimental investigation of the static distribution in soil layers under foundations of various dimensions.
303. A. A. Buzdakov (Leningrad): On the stability and vibrations of anisotropic plates and shells.
304. A. A. Buzdakov (Leningrad): On the theory of thin plates.
305. D. G. Rabinovich (Leningrad): Some biharmonic problems concerning the stability of thin plates.
306. A. I. Kozlov (Leningrad): Reversed creep: a remark to the creep buckling theory of Babitskiy and Shusterman.
307. A. A. Buzdakov (Leningrad): Minimum weight forces in a reinforced concrete slab designed for combined loading.
308. A. A. Buzdakov (Leningrad): The stability of a reinforced concrete slab under combined compression, flexure, and shear.
309. A. A. Buzdakov (Moscow): The nonlinear equations of the motion of a thin plate under the action of a distributed load.
310. A. A. Buzdakov (Moscow): The stability of a thin plate under the action of a distributed load.
311. A. A. Buzdakov (Moscow): The stability of a thin plate under the action of a distributed load.
312. A. A. Buzdakov (Moscow): The physical foundations of the stability of thin plates.
313. A. A. Buzdakov (Moscow): Saint Venant's problem for thin plates.
314. A. A. Buzdakov (Moscow): On some properties of the biharmonic equation.
315. A. A. Buzdakov (Moscow): A two-dimensional problem concerning the stability of a thin plate.
316. A. A. Buzdakov (Leningrad): On the forced transverse vibrations of a thin plate.
317. A. A. Buzdakov (Leningrad): On the integration of the equations of the plane stress of plasticity.
318. A. A. Buzdakov (Leningrad): Stability of regular structures and plates.
319. A. A. Buzdakov (Moscow): On the limit equilibrium of shells of revolution.
320. A. A. Buzdakov (Moscow): A contribution to the formulation of problems concerning anisotropic plastic media.
321. A. A. Buzdakov (Moscow): Solutions of some two-dimensional problems of plasticity with application to the rolling of metal.
322. A. A. Buzdakov (Leningrad): The solution of some contact problems of plasticity (equation of Prandtl type).
323. A. A. Buzdakov (Moscow): A heavy medium weakened by an elliptical cavity.
324. A. A. Buzdakov (Moscow): The method of integral equations in the theory of plasticity.
325. A. A. Buzdakov (Moscow): Creep of non-uniformly heated bodies.
326. A. A. Buzdakov (Moscow): Anomalous solutions of a perfectly plastic medium.

KHUTOBETS-SHEREMINSKIY, B.I. (Rostov-na-Donu)

Functioning of thin-walled rods loaded with longitudinal forces.
Stroi. mekh. i rasch. soor. 4 no.2:19-20 '62. (MIRA 15:5)
(Elastic rods and wires)

KHUTOBETS-SHEREMINSKY, B. I. (Rostov-on-Don)

"The limit method of generalized coordinates in the problems of stability of thin-walled bars".

report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow, 29 January - 5 February 1964.

KHUDOBIN, Aleksandr Ivanovich; KHUDOBIN, Nikolay Ivanovich; PAZEL'SKIY,
S.V., redaktor; PETROVA, M.D., tekhnicheskii redaktor.

[Collection of problems in trigonometry; manual for teachers]
Sbornik zadach po trigonometrii; posobie dlia uchitelei. Izd.
2-oe. Moskva, Gos. uchebno-pedagog. izd-vo Ministerstva prosve-
shcheniia RSFSR, 1955. 207 p. (MIRA 9:5)
(Trigonometry--Problems, exercises, etc.)

KHU DOBIN, Afanasiy Ivanovich, kand. ekonom. nauk; NOSOV, F.V., doktor
istor. nauk, red.; ILLYUMINARSKIY, K.L., red.; ONOSHKO, N.G.,
tekhn. red.

[Great advantages of socialism] Velikie preimushchestva so-
tsializma. Pod obshchei red. F.V.Nosova. Leningrad, Lenizdat,
1960. 35 p. (MIRA 14:8)

(Russia--Economic conditions)

KHUDOBIN, L.V.

Electric Controllers

Electric instrument for the control of the thickness of the rim, and width of the roller groove of inner rings during grinding. Podshipnik no. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, April 1952. UNCLASSIFIED.

1. KHU DOBIN, L. V.
2. USSR (600)
4. Grinding and Polishing
7. Automatic machine for polishing the bearing surface of the external rings of ball bearing. Podshipnik no. 10, 52

9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

VORONTSOV, A.V.; KHUTOBIN, L.V.

Semi-automat for the insertion of balls into the cage of bicycle bearings.
Podshipnik no.7:27-28 JI '53.
(MLRA 6:8)
(Ball--Bearings)

KHUDOBIN, L. V

USSR/Engineering - Machine Tools

Card 1/1

Authors : Khudobin, L. V.; and Vorontsov, A. V.

Title : Automatic Buffing Machine

Periodical : Stan. i Instr. Ed. ¹⁶ 1, 7-9, Jan/1954

Abstract : A description of a fully automatic buffing machine, used for polishing inner ball bearing races is given. The machine was designed by A. V. Vorontsov, and according to the author, it is very economical, and 2-3 times as efficient as any known machine. Drawings; Illustrations.

Institution :

Submitted :

KHUDOBIN, L. V. Cand Tech Sci -- (diss) "Development and study of new technological possibilities for cylinder-and-cone grinding machines." Mos, 1957. ¹⁹⁵⁷
with diagrams
19 pp (Min of Higher Education USSR. Mos Machine Tool and Instrument Inst im
I. V. Stalin. Chair of "Technology of Machine Building"), 110 copies
(KL, 44-57, 100)

AUTHOR: Khudobin, L.V.

TITLE: Improvement in the accuracy of small displacements (povysheniye tochnosti malykh peremeshcheniy) 121-2-2/20

PERIODICAL: "Stanki i Instrument" (Machine Tools and Tools), 1957, No.2, pp. 10 - 13 (U.S.S.R.)

ABSTRACT: Referring to Elyasberg M.E. (Raschet Mekhanizmov Podachi Metallovezhushchikh Stankov na Plavnost i Chuvstivitel'nost' peremeshcheniya (O Razryvnykh Kolebaniyakh pri Trenii) Stanki i Instrument, Nos. 11/12, 1951), and Pusa, V.E. (Voprosy dinamiki Privoda Stankov. Doctor's Thesis, Moscow, 1956) and Deryagin et al (Teoriya Skol'zheniya Tverdykh Tel s Periodicheskimi Ostanovkami, Zhurnal Tekhnicheskoy Fiziki, No.6, 1956) the physical nature and mathematical relations of the phenomenon of relaxation oscillations in mechanical systems and the causes of inaccuracy and non-uniformity of small displacements are thought to be understood. A setting-up error is equal to the difference between the "static" and "dynamic" friction forces divided by the stiffness of the setting-up (feed) transmission. Methods used to reduce the difference in the friction force include the introduction of rolling friction, the replacement of cast iron in the guiding surfaces by other materials, preferably plastics, the superimposition of oscillations, the

1/3

Improvement in the accuracy of small displacements. (Cont.)
121-2-2/20

unloading of the guiding surfaces with the help of special carriages with spring-supported rollers and other methods. The elimination of clearances is the object of a number of mechanisms used in machine tools. All these methods have some disadvantages, due mainly to an increase in the wear of the guiding surfaces. Experimental work carried out at the production laboratory of the "Mosstankin" plant is described whose aim it was to produce guiding surfaces ensuring fluid friction and to incorporate a hydraulic device eliminating clearances in the feed mechanism. The tests were carried out on a cylindrical grinding machine and are reported here in a series of graphs showing the scatter of setting-up displacements plotted against the nominal adjustment of the machine. The results of the elimination of clearances in the feed mechanism by means of weights and by means of a hydraulic loading device, shown diagrammatically, and specially constructed for the purpose of these tests have yielded equal improvements. A nominal adjustment of $50\ \mu$ is associated with scatter of about $42\ \mu$ before and about $8\ \mu$ after the elimination of clearances. A hydraulic system was then introduced which yielded a pressure feed of lubricant to the guiding surfaces through longitudinal grooves. It was shown by tests that having created along the whole

2/3

Improvement in the accuracy of small displacements. (Cont.)
length of contact, an oil layer of 0.02 mm thickness, the ^{121-2-2/20}
grinding wheel carriage weighing 650 kg could be moved by a
force below 1 kg (friction coefficient of about 0.001). With
this type of friction no measurable scatter remained and wear
of the guiding surfaces could not be detected.

- There are 8 figures, including 2 photographs and 5 graphs,
3 tables and 5 Slavic references.

AVAILABLE:

3/3

KHUDOBIN, L. V.

CHARNEO, D.V.; KHUDOBIN, L.V.

Increasing the efficiency of grinding. Stan.1 instr. 28 no.4:11-13
Ap '57.

(MLRA 10:5)

(Grinding and polishing)

KHUTOBIN, L.V., inzh.; VORONTSOV, A.V.

Continuous automatic grinding machines. Vest. mash. 37 no.8:36-38
Ag '57. (MIRA 10:9)
(Grinding machines)

KHUDOBIN, L.V.; FRAGIN, I.Ye.

Analyzing operating cycles of automatic cylindrical grinding machines. Nauch.dokl.vys.shkoly; mash.i prib. no.4:134-143 '58. (MIRA 12:5)

1. Stat'ya predstavlena kafedroy "Tekhnologiya mashinostroyeniya" Moskovskogo stankoinstrumental'nogo instituta.
(Grinding machines)

Khudobin, L.V.

AUTHOR: Khudobin, L.V.

121-4-2/32

TITLE: Automatic Regulating of the Radial Pressure in Grinding
(Avtomaticheskoye upravleniye radial'nykh usiliyem
shlifovaniya)

27
PERIODICAL: Stanki i Instrument, 1958, No.4, pp. 6 - 9 (USSR).

ABSTRACT: An installation for automatically maintaining a pre-set radial force between the grinding wheel and the workpiece in cylindrical grinding has been designed, made and tested in the production laboratory of the Moscow Machine Tool Institute (Moskovskiy stankoinstrumental'nyy institut). The control of radial pressure can be accomplished by the variation of either the longitudinal rate of feed or the depth of cut, or the surface speed of the workpiece, without a clear advantage in favour of any one system. Automatic regulating helps the attainment of the highest rate of metal removal without (a) burning the surface, (b) tool chatter. In doing so, it is necessary to reduce gradually e.g. the longitudinal rate of feed. When this drops below a pre-determined value, dressing of the grinding wheel becomes necessary. The cycle of operations in the system embodied by the Institute consists of four stages. In the first stage, the operator loads the workpiece, starts its rotation and the longitudinal reciprocating feed motion of the

Card 1/5

121-4-2/32

Automatic Regulating of the Radial Pressure in Grinding

table, initiates the rapid approach of the grinding wheel to the workpiece and engages the automatic transverse feed, plunging the wheel into the workpiece. The transverse advance ceases when the radial force reaches a pre-determined value. The second stage is the steady grinding process whilst the radial pressure is automatically maintained at its maximum permissible value. This stage is completed on receiving a signal from the continuous gauging device that the grinding wheel has reached the required depth. This signal automatically disengages the transverse feed. Simultaneously, the automatic regulating system for the radial pressure is disconnected. The third stage is the running out of the grinding wheel. It is completed by a signal from the automatic gauging device which measures the final size of the workpiece. The grinding wheel spindle is rapidly withdrawn and the rotation of the workpiece and longitudinal motion of the table are simultaneously stopped. The fourth stage is the unloading of the workpiece from the machine. In the installation selected, the radial pressure is held constant by varying the speed of rotation of the workpiece. A block diagram of the automatic regulating system and a diagram of the infinitely variable electrical drive with a range of speed control

Card2/3

Automatic Regulating of the Radial Pressure in Grinding 121-4-2/32

between 0 and 340 rpm are reproduced. The longitudinal table speed is held proportional to the rotational speed of the component by a special mechanism, shown in a photo and described. The continuous gauging device has been described earlier ("Increase of Output in Grinding" in Stanki i Instrument, 1957, No.4). The circuit diagrams of the control circuits are reproduced. Examples show that the reduced machine time due to the new type of grinding force control gives a considerable overall economy in many instances, in spite of the manual loading and unloading. There are 9 figures, including 2 photographs.

AVAILABLE: Library of Congress

Card 3/3

1. Machine tools (Automatic)
2. Machine tools-Operation

KHUDOBIN, L.V., kand. tekhn. nauk; POPOV, A.T., ved. red.; TOLMACHEV,
V.B., inzh., red.; SHVETSOV, G.V., tekhn. red.

[Abrasive finishing of metals; abstracts] Abrazivnaia obrabotka
metallov; referativnyi sbornik. Moskva, Filial Vses. in-ta
nauchn. i tekhn. informatsii, 1958. 43 p. (Peredovoi nauchno-
tekhnicheskii i proizvodstvennyi opyt. Tema 10. No.M-58-394/51)
(MIRA 16:2)

(Grinding and polishing—Abstracts)

KHUTOBIN, L.V.

Profilograph for grinding wheels. Izv. tekhn. no.1:17-18 Ja '64.
(MIRA 17:11)

KHUDOBIN, Aleksandr Ivanovich; KHUDOBIN, Nikolay Ivanovich; PAZEL'SKIY,
S.V., redaktor; PETROVA, M.D., tekhnicheskiy redaktor.

[Collection of problems in trigonometry; manual for teachers]
Sbornik zadach po trigonometrii; posobie dlia uchitelei. Izd.
2-oe. Moskva, Gos. uchebno-pedagog. izd-vo Ministerstva prosve-
shcheniia RSFSR, 1955. 207 p. (MLRA 9:5)
(Trigonometry--Problems, exercises, etc.)

AUTHOR: Khudebin, V. SOV-107-56-4-43/57

TITLE: The 43LK2B Kinescope in the "Temp" and "Temp 2" Televisors
(Kineskop 43LK2B v televizorakh "Temp" i "Temp-2")

PERIODICAL: Radio, 1958, Nr 4, p 47 (USSR)

ABSTRACT: The author describes the method of fitting the kinescope into the "Temp" and "Temp-2" receivers and deals with such problems as voltage supply and adjustment, alignment and tuning.
There is 1 circuit diagram and 1 diagram.

1. Iconoscopes--Installation 2. Television receivers--Equipment

Card 1/1

KANE, A.M.; KULESHA, K.K.; MAKSIMOV, I.O.; ROZANOV, P.A.; KHU DOBIN, V.M.,
redaktor; KANDYKIN, A.Ye., tekhnicheskii redaktor

[Assembly-line method of repairing freight cars; work practice
of the Leningrad shunting Moscow Station of the October line]
Potochnyi metod remonta gruzovykh vagonov; opyt raboty vagonnogo
depo stantsii Leningrad-sortirovochnyi Moskovskii Oktiabr'skoi
dorogi. Moskva, Gos. transp. zhel-dor. izd-vo, 1955. 66 p.
(MLRA 9:2)

(Railroads--Cars--Maintenance and repair)

KHUDOBIN, V.M., inzhener; YUDZON, D.M., tekhnicheskii redaktor.

[Wide gage railroad cars of the U.S.S.R.; brief manual] Vagony shirokoi kolei zheleznykh dorog SSSR; kratkii spravochnik. Moskva, Gos. transportnoe zheleznodorozhnoe izd-vo, 1955. 156 p. (MIRA 8:4)

1. Russia (1923- U.S.S.R.) Ministerstvo putey soobshcheniya. Glavnoe upravleniye vagonnogo khoziaystva.
(Railroads--cars)

KHUDOBIN, Yu.I.

Case of open complicated fracture of the pelvis. *Khirurgiya* 35
no. 5:117 My '59. (MIP 13:10)

1. Iz Sverdlovskogo nauchno-issledovatel'skogo instituta
travmatologii i ortopedii (dir. - nauchnyy rukovoditel' instituta
chlen-korrespondent AMN SSSR zasluzhennyy deyatel' nauki prof.
F.R. Bogdanov.

(PELVIS—FRACTURE)

· KHUDOBIN, YU.I.

USSR/Organic Chemistry - Synthetic Organic Chemistry

E-2

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4470

Author : Voronkov, M.G., Khudobin, Yu.I.

Inst : Academy of Sciences USSR - *Inorg. & Phys. Chem.*

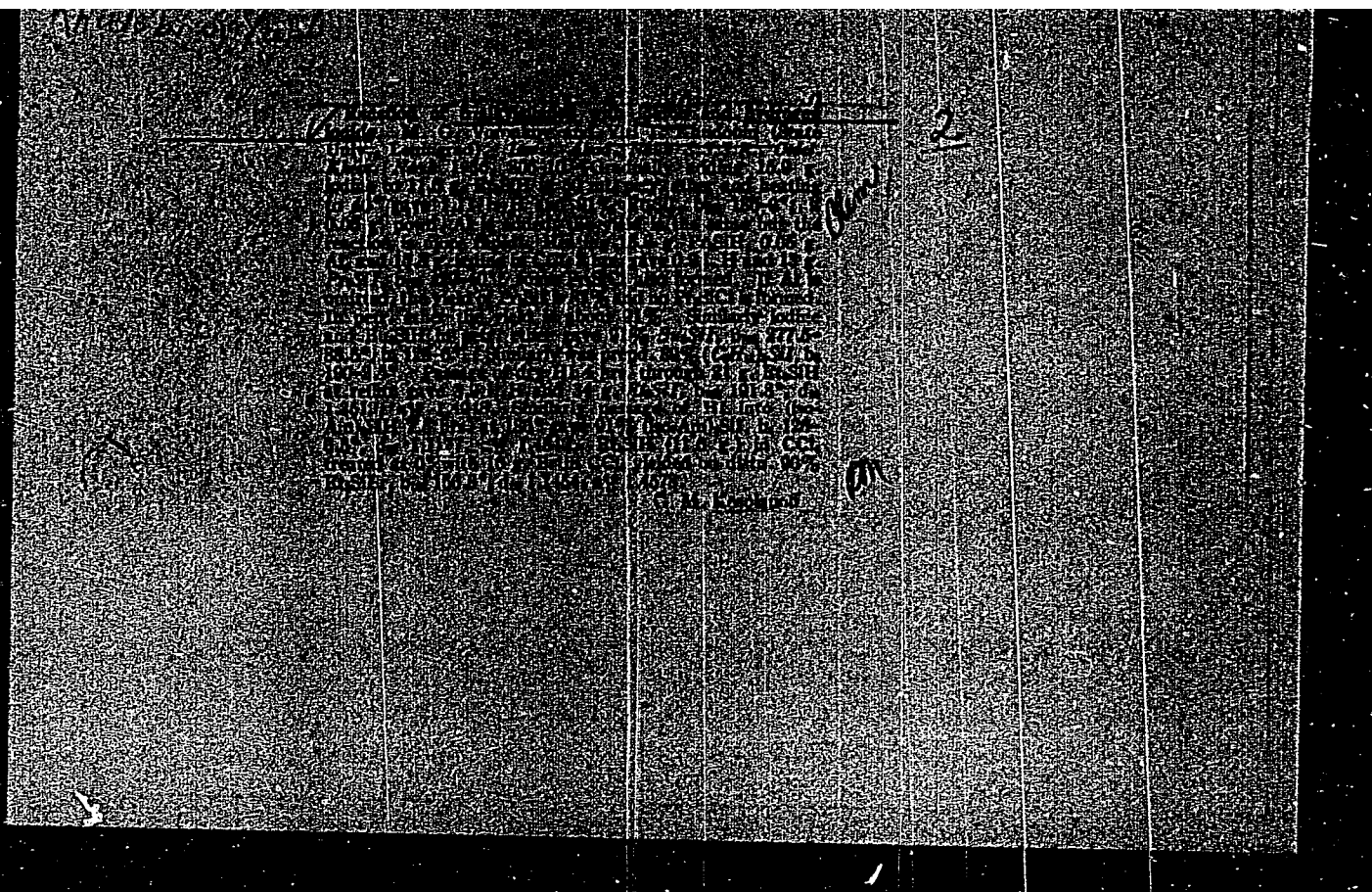
Title : Reaction of Hexaalkyl-Disiloxanes with Iodine and Aluminum

Orig Pub : Izv. AN SSSR, Otd. khim. n., 1956, No 6, 713-714

Abstract : Trialkyl-iodosilanes (I) are readily formed on boiling hexaalkyl disiloxanes with Al and iodine, taken at the molar ratios 1:1.1:1.5. until the color of iodine is discharged, and subsequent distillation of the reaction mixture in a current of N_2 in diffused light. Below are listed the alkyl, yield of I in %, BP in $^{\circ}C \pm 0.5^{\circ}/mm$, and d_4^{20} 0.001: CH_3 , 93, 107.5/760, 1.422; C_2H_5 , 89, 191.2/760, 1.351; $n-C_3H_7$, 88, 238/760, 1.229; $n-C_4H_9$,

Card 1/2

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Khudobin, Yu. I.

AUTHORS: Dolgov, B. M., Khudobin, Yu. I., Kharitonov, N. I. 62-1-25/29

TITLE: The Reactions of the Catalytic Dehydrocondensation of the Tri-alkyl-, Triarylsilanes With Oxy-, Oxo-, and Polyoxyorganic Compounds (Reaktsii kataliticheskoy degidrokondensatsii trialkil-, triarilsilanov s oksi-, okso- i polioksiorganicheskimi soyedineniyami)

PERIODICAL: Izvestiya AN SSSR Otdeleniye Khimicheskikh Nauk, 1958
Nr 1, pp. 113 - 115 (USSR)

In literature there are reports about the possibility of the condensation of the trialkylsilanes with monoatomic alcohols and amines under the action of small quantities of alkaline metals. This is also the case with monocarboxylic acids under the action of a mixture of iodine and aluminum. A general catalytic method for the production of trialkyl-trialkylsilyl-derivatives of organic oxy-, oxo-, and polyoxycompounds was worked out by the authors. The metallic halides of Ni, Co, Cr, Ge, Zn, and Sn turned out to be the best catalysts of these reactions. Synthesized were with a yield of up to 95% theoretically 18 trialkylsilyl-derivatives of oxy-, oxo-, and polyoxycompounds, and their physical-chemical properties were determined (see table). Furthermore it was found that a series of trialkyl-

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The Reactions of the Catalytic Dehydrocondensation of the Tri- 62-1-25/29
alkyl-, Triarylsilanes With Oxy-, Oxo-, and Polyoxyorganic Compounds

-triarylsilyl-derivatives of the organic oxy- and polyoxy-
compounds freeze below -50° and boil at 500° (760 mm) without
decomposing. These compounds can be used as heat carriers.
There are 1 table, and 4 references, 3 of which are Slavic.

ASSOCIATION: Institute of Silicate Chemistry of AS USSR (Institut
khimii silikatov Akademii nauk SSSR)

SUBMITTED: July 30, 1957

AVAILABLE: Library of Congress

1. Metal halides-Catalytic properties
2. Silanes-Condensation reactions
3. Organic compounds-Condensation reactions
4. Silanes-Catalysis

Card 2/2

AUTHORS: Dolgov, B. N., Kharitonov, N. P., SOV/79-28-10-17/60
Glushkova, N. Ye., Khudobin, Yu. I.

TITLE: Catalytic Dehydro Condensation of the Trialkyl Silanes
With Alcohols in the Presence of Metal Chlorides
(Kataliticheskaya degidrokondensatsiya trialkilsilanov so
spirtami v prisutstvii khloridov metallov)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol 28, Nr 10, pp 2710-2713,
(USSR)

ABSTRACT: The authors continued their investigations of the previous
paper on the catalytic dehydro condensation of the above-
mentioned silanes with oxy, oxo and polyoxy-organic compounds.
Earlier they used alkali alcoholates as catalysts for this
condensation of R_3SiH with alcohols (yields 80-90 %). In the
present paper moreover some small additions of various metal
chlorides are used, of which $ZnCl_2$ and $SnCl_2$ proved to be the
most active. The reaction velocity of R_3SiH with alcohols
depends on the nature and the quantity of metal chlorides. The
increase of the amount of chlorides from 0,05 to 1 gr. leads
to the increase of the reaction velocity, whereas the further
addition has no more influence. The reactions of methanol with

Card 1/3

Catalytic Dehydro Condensation of the Trialkyl Silanes SOV/79-28-10-17/60
With Alcohols in the Presence of Metal Chlorides

triethyl silane at a ratio of 2:1 (Table 1) prove this. The increase in length of the alkyl radicals from CH_3 to $n\text{-C}_4\text{H}_9$ in alcohols of normal structure decreases the reaction velocity (Table 2, Experiments 1-3, 5). The difficulties in the spatial arrangement in the case of the presence of radicals of the iso-structure considerably decrease the reaction velocity (Table 2). The structure of the trialkyl silane exerts an important influence on the reaction velocity (Table 3). 13 trialkyl alkoxy silanes, 7 of which are new, were synthesized. The physical properties of the newly synthesized trialkylalkoxy silanes are given in table 4. The method described is of general character for the alkoxylation of the Si-H bond, and makes it possible to obtain the trialkylalkoxy silanes in pure state. No side products are formed. There are 5 tables and 4 references, 2 of which are Soviet.

ASSOCIATION: Institut khimii silikatov Akademii nauk SSSR
(Institute of the Chemistry of Silicates of the Academy of Sciences, USSR)

Card 2/3

AUTHORS: Dolgov, B. N., Khudobin, Yu. I.,
Kharitonov, N. P.

SOV/20-122-4-18/57

TITLE: A New Synthesis Method of the Tris(Trialkyl(Aryl)Silyl)Borates
(Novyy metod sinteza tris(trialkil(aril)silil)boratov)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 4, pp 607-608
(USSR)

ABSTRACT: Only imperfect data on the production of the organosilicon esters of the boric acid have hitherto appeared in literature (Refs 1-4). In the present paper the authors carry on their investigations concerning the dehydro-condensation of the trialkyl(aryl)silanes with organic molecules containing oxy-, oxo-, and polyoxy-groups. The authors reported earlier (Refs 5, 6) on an even reaction course of the last mentioned compounds with oxy-, carboxy-, and polyoxy-organic compounds in the presence of catalysts of non-alkaline nature. The trialkyl(aryl)silanes can be dehydrocondensated with the boric acid without formation of by-products in the presence of small additions (0,01 - 1%) of anhydrous halides of cobalt, nickel, palladium, or platinum: the borates mentioned in the title are produced with a yield of 90 - 95%. The reaction is caused by heating a mixture of the initial components at 100 - 130° and is

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A New Synthesis Method of the
Tris(Trialkyl(Aryl)Silyl)Borates

SOV/20-122-4-18/57

easily controlled by the velocity and the quantity of the escaping hydrogen. The borates obtained have a high degree of purity. They are colorless liquids with a particular smell, which can be distilled without decomposition. They are hydrolyzed easily by water and diluted alkalis as well as acids. Table 1 gives the physical constants, yields, and analysis results of these substances. There are 1 table and 7 references, 4 of which are Soviet.

ASSOCIATION: Institut khimii silikatov Akademii nauk SSSR (Institute of Silicate Chemistry of the Academy of Sciences, USSR)

PRESENTED: May 30, 1958, by A. V. Topchiyev, Academician

SUBMITTED: May 29, 1958

Card 2/2

5 (3)

AUTHORS:

Dolgov, B. N., Khudobin, Yu. I.,
Kharitonov, N. P.

SOV/62-59-7-13/38

TITLE:

Interaction Between Trialkyl-silanes and Phenol in the Presence of Metal Halides (Vzaimodeystviye trialkilsilanov s fenolom v prisutstvii galogenidov metallov)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 7, pp 1238 - 1243 (USSR)

ABSTRACT:

The present paper deals with the possibility of replacing the hydrogen atom bound to silicon in the trialkyl-silanes by a phenoxy group in the presence of metal halides. $R_3SiH + HOC_6H_5 \rightarrow R_3SiOC_6H_5 + H_2$. Furthermore, the influence of the structure of the trialkyl-silanes on the reaction velocity was investigated. The reaction proceeds already under inconsiderable additions of metal halides and leads to the production of trialkyl-phenoxy silane. This reaction does not take place if the catalyst is missing and in the presence of metallic potassium. The experimental data are given in table 1. The following rules governing the reaction course were obtained from these data: the halides of Cr, Co, Ni, Ge, Zn, Sn, and Hg

Card 1/2

Interaction Between Trialkyl-silanes and Phenol in
the Presence of Metal Halides

SOV/62-59-7-13/38

turned out to be the best catalysts. The reaction velocity increased with rising halogen ion radius. The quantity of the used catalyst exercised also a considerable influence on the reaction velocity. Data on the reaction course with alkylene of different structure in the presence of nickel chloride resulted (Table 2) that the reaction velocity increases as well with rising boiling point of the trialkyl-silanes. Trialkyl-silanes with different radicals react more quickly than those with uniform radicals, even more slowly those with branched radicals. The trialkyl-silanes which may be obtained by the described method are very pure. 16 trialkyl-silanes were synthesized, 13 of which have hitherto not been known. The syntheses are described in the experimental part. There are 1 table and 8 references, 5 of which are Soviet.

ASSOCIATION: Institut khimii silikatov Akademii nauk SSSR (Institute of the Chemistry of Silicates of the Academy of Sciences, USSR)

SUBMITTED: September 12, 1957
Card 2/2

67127
SOV/143-59-11-8/15

8 5.4600

AUTHORS: Dolgov, B.N., Professor, Doctor of Technical Sciences;
Kharitonov, N.P., Candidate of Technical Sciences;
Khudobin, Yu.I., Engineer; Renne, V.T., Prof., Doctor of
Technical Sciences; and Soya, G.P., Engineer

TITLE: Research on the Electric Properties of Some Silico-
Organic Liquids

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Energetika,
1959, Nr 11, pp 59-66 (USSR)

ABSTRACT: This is a report on the experiments carried out by the
authors to ascertain the electric properties of some
silicone fluids which are potential impregnating or
sealing dielectrics. Silicone fluids are rarely used
in the USSR, although liquid dielectrics are required
for many types of electric equipment. The fluids,
examined by the authors, are considerably different
in their chemical composition from polymethyl- or
polyethyl-siloxanes, especially by the presence of a

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SOV/143-59-11-8/19

Research on the Electric Properties of Some Silico-Organic Liquids

central benzole ring in the molecule. The tested liquids are designated as "Nr 2", "Nr 243" and "Nr 529". They were synthetically produced by the Institute of the Chemistry of Silicates at the AS USSR and tested at the Leningrad Polytechnic Institute imeni M.I. Kalinin. Their physical properties are listed in Table 1. Table 2 shows electric properties of the subject liquids plus "Kaloriya-2" liquid, at room temperature. The evaporability of the examined liquids, plus

"Kaloriya-2" and vaseline oil, at 150°C is shown in Table 3. Table 4 shows electric characteristics of different liquids used for the impregnation of experimental capacitors. (Tested were: "Nr 529", "Kaloriya-2", "MN-3" oil, and vaseline oil.) The characteristics of the experimental capacitors impregnated with the same liquids are shown in Table 5. Table 6 shows the changes of the characteristics of experimental capacitors during the process of aging (up to 200 hours). The devices used in the tests

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SOV/143-59-11-8/19

Research on the Electric Properties of Some Silico-Organic Liquids

were: "MDP" bridge with an "M501" vibrational galvanometer and an "F50-1" amplifier - for measuring the specific inductive capacitance and loss angle at 50-cycle frequency and 1 kv voltage; at 400 to 5,000-cycle frequency, an "MLYe-1" bridge with a "ZG-4" sound generator and an "ELUR-3" indicator were employed; at frequencies up to 0.7 megacycles, the "KV-1" Q-meter was applied. The authors conclude that all three new silico-organic liquid dielectrics deserve to be thoroughly examined. In particular, "Nr 529" liquid must be paid attention to. Its main characteristics are: specific inductive capacitance at 20°C: 3.05; the tangent of the loss angle at 20°C: 0.0002; specific resistance at 150°C: 1.10^{12} ohm.cm; evaporation loss after 64 hours at 150°C: 1.21 %. There are 6 tables, 9 graphs, and 3 references, 2 of which are

Card 3/4

67127

Research on the Electric Properties of Some Silico-Organic Liquids
SOV/143-59-11-8/19
English, 1 Soviet.

ASSOCIATION: Institut khimii silikatov AN SSSR (Institute of the
Chemistry of Silicates at the AS USSR) (Dolgov,
Kharitonov, Khudobin); Leningradskiy politekhniches-
kiy institut imeni M.I. Kalinina (Leningrad Polytech-
nic Institute imeni M.I. Kalinin) (Renne, Soya)

SUBMITTED: July 21, 1959

Card 4/4

S/661/61/000/006/031/081
D205/D302

AUTHORS: Kharitonov, M. P., Dolgov, B. N. and Khudobin, Yu. I.
TITLE: Catalytic dehydrocondensation of trialkyl silanes with ketones
SOURCE: Khimiya i prakticheskoye primeneniye kremneorganicheskikh soyedineniy; trudy konferentsii. no. 6: Doklady, diskussi, resheniye. II Vses. konfer. po khimii i prakt. prim. kremneorg. soyed., Len., 1958. Leningrad, Izd-vo AN SSSR, 1961, 153-154

TEXT: A discussion in which G. I. Nikishin (IOKh AN SSSR, Moscow), I. A. Shikhiyev (Baku), I. M. Rubintchik (VNIIZhT, Moscow), Yu. K. Yur'yev (MGU) and V. A. Ponomarenko (IOKh AN SSSR, Moscow) took part. M. P. Kharitonov replied. The subject of the discussion was the practical use of the above reaction products. V. A. Ponomarenko said that at the present time the products are of no practical value. Yu. K. Yur'yev objected to the reaction being called dehydrocondensation, this name being reserved for reactions in which a

Card 1/2

Catalytic dehydrocondensation of ...

S/661/61/000/006/031/081
D205/D302

C-C bond is formed as the result of hydrogen removal. The authors revealed that they have prepared interaction products of $(C_2H_5)_3SiH$, $(n-C_3H_7)SiH$, $(n-C_4H_9)_3SiH$, $CH_3(C_2H_5)_2SiH$, $C_2H_5(n-C_4H_9)_2SiH$ and other silanes with acetone, methyl ethyl ketone, acetophenone, di-n-propyl ketone, etc. The degree of enolization of the ketone has an influence on the reaction rate. The higher the degree of enolization, the faster the reaction. Reactions with diketones will be performed in continuation of the present work.

ASSOCIATION: Institut khimii silikatov, AN SSSR, Leningrad (Institute of Silicate Chemistry of the AS USSR, Leningrad)

Card 2/2

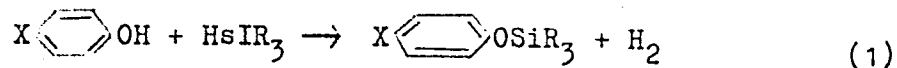
S/661/61/000/006/032/081
D205/D302

AUTHORS: Khudobin, Yu. I., Dolgov, B. N. and Kharitonov, N. P.

TITLE: Dehydrocondensation of trialkyl(aryl)silanes with hydroxyl-containing organic compounds

SOURCE: Khimiya i prakticheskoye primeneniye kremneorganicheskikh soyedineniy; trudy konferentsii. no. 6: Doklady, diskussii, resheniye. II Vses. konfer. po khimii i prakt. prim. kremneorg. soyed., Len., 1958. Leningrad, Izd-vo AN SSSR, 1961, 155-158

TEXT: Trialkyl(aryl)silanes interact with p-chlorophenol and o-bromophenol in the presence of Zn, Sn, Fe and Al halides giving 95% yields according to

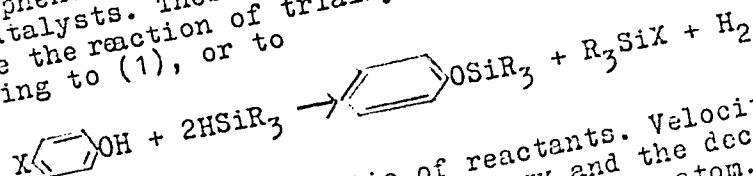


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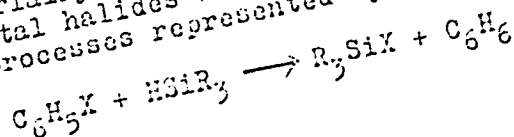
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Dehydrocondensation of trialkyl ...

Under analogous conditions trialkyl(aryl)silanes do not react with p-bromophenol. In this case colloidal Co, Ni, Pd and Pt are the best catalysts. These catalysts in the amount of 0.01 - 0.0001% promote the reaction of trialkyl-(aryl)-silanes with halogenophenols according to (1), or to



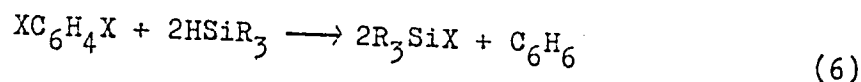
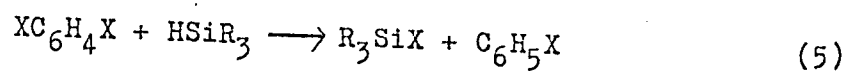
depending on the molar ratio of reactants. Velocity of the reaction increases with decreasing bond energy and the decrease in the distance between the hydroxy-group and halogen atom. The influence of Zn, Sn, Fe and Al halides and of colloidal Co, Ni, Pd and Pt on the reaction between trialkyl(aryl)silanes and halogenobenzenes was investigated. The metal halides were inactive but the colloidal metals promoted the processes represented by



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Dehydrocondensation of trialkyl...

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The reaction velocity increases with the decrease of the bond (C-X) energy. The reactions with dihalogenobenzenes were analogous and the same may be said of α -bromonaphthalene and 9,10-dibromoanthracene. P. V. Davydov (Moscow), V. A. Ponomarenko, R. Kh. Freydlina (INEOS AN SSSR, Moscow) and M. G. Voronkov (IKhS AN SSSR, Leningrad) took part in the discussion which followed. The opinion of all the participants was that the use of catalysts in the reaction, and in particular of the colloidal metals of the VIII group of the periodic table is of great practical importance. There are 3 tables.

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37827

S/143/62/000/006/003/008
D238/D308

9.2110

AUTHORS: Dolgov, B. N. (deceased), Doctor of Chemical Sciences, Khudobin, Yu. I., Professor, Engineer, Kharitonov, N. P., Candidate of Chemical Sciences, Renne, V. T., Doctor of Technical Sciences, Bondarenko, P. N. and Soya, G. P., Engineers

TITLE: The influence of composition and structure of the molecules of some liquid silicones on their electrical properties

PERIODICAL: Izvestiya vysshikh uchebnykh zavendeniy. Energetika, no. 6, 1962, 31-36

TEXT: A study of bi- and tri-(trialkylciloxy)benzoles of different composition and structure indicates that molecular structure has a marked influence on the specific inductive capacitance, the highest value being obtained from the meta, a medium value for the para- and the smallest for the ortho condition. For a given dipolar moment it can be expected that a higher molecular weight would

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D238/D308

The influence of ...

result in a lower specific inductive capacitance and this was observed, but above molecular weight 450, the reduction in specific inductive capacitance ceases and even rises slightly, due to the rise in the dipole moment of the molecules. Increase of molecular weight is accompanied by a sharp drop in the loss angle and an increase in the resistivity. Improved electrical performance is obtained by employing liquid with a high molecular weight and with the meta-condition of the siloxy group. However, the high molecular weight leads to a higher viscosity, which can act adversely with regard to frost resistance when used in condensers. The data, however, indicate the possibility of obtaining a liquid dielectric having good dielectric properties with a freezing temperature not higher than -60°C , having a satisfactory viscosity and with a high boiling point, exceeding 300°C at normal pressure and 200°C at a higher pressure corresponding to wireless condenser impregnation. There are 3 tables and 5 figures. ✓

ASSOCIATION: Institut khimii silikatov AN SSSR (Institute of Silicate Chemistry, AS USSR) (B. N. Dolgov, Yu. I. Khudo-

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The influence of ...

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kiy institut imeni M. I. Kalinina (Leningrad Polytech-
nic Institute imeni M. I. Kalinin (V. T. Renne, P. N.
Bondarenko and G. P. Soya)

SUBMITTED: April 6, 1961

Card 3/3

NEFEDOV, V.D.; KHARITONOV, N.P.; LI DE-FU [Li Tieh-fu]; GUSEV, Yu.K.;
SKOROBOGATOV, G.A.; SMIRNOV-AVERIN, A.P.; SEVAST'YANOV, Yu.G.;
KHUDOBIN, Yu.I.

Tritiation of organosilicon compounds by the method of rebounding
tritium atoms. Zhur.ob.khim. 32 no.2:614-618 F '62. (MIRA 15:2)

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gosudarstvennyy universitet.

(Silicon organic compounds)

(Tritium)

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KHUDOBIN, Yu.I.

Interaction between pentaerythritol and trialkyl silanes
in the presence of some metal halides. Izv. AN SSSR. Ser.
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KHARITONOV, N.P.; KONSTANTINOVA, G.T.; KHU DOBIN, Yu.I.; KOMAROV, V.A.

Catalytic reaction of trialkyl (aryl) silanes with allyl alcohol.
Izv. AN SSSR Ser.khim. no.10:1749-1756 O '63. (MIRA 17:3)

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KOMAROV, V.A.; PLATONOVA, V.I.; RODIMENKOVA, N.A.; KHARITONOV, N.P.;
KHUPOBIN, Yu.I.

Effect of alcohol structure and solvent composition on the
kinetics of the alkaline solvolysis of trialkylsilanes.
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BRODOV, L.Yu.; LANTSOV, I.A.; KHUDOBINA, L.N.; BAKHAREVSKAYA, T.M.

Experimental study of head transverse waves. Trudy Inst. geol.
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PUZYREV, N.N.; KHUOBINA, L.N.

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